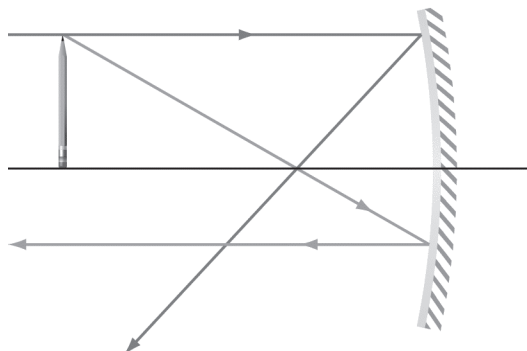


Section 10.3 Review (Alternative Format)

Goal • To review the concepts from Section 10.3.

1. Mark and label the focal point and the centre of curvature of the mirror in this diagram.



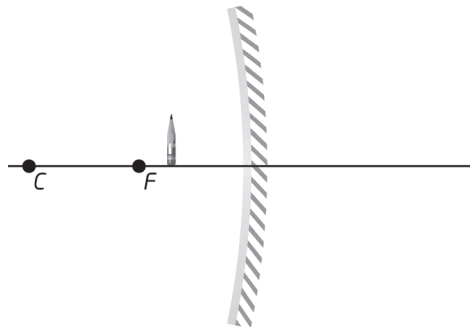
Fill in the blanks to complete the statements in questions 2 to 5.

2. The three rays from a point on an object that are particularly useful for locating the image of the point are
 - a. the ray that starts _____ to the principal axis of the mirror, reflects, and then passes through the _____ of the mirror
 - b. the ray that passes through the _____ and then _____ from the mirror, travelling parallel to the _____
 - c. the ray that travels straight from the object to the _____ of _____ of the mirror
3. a. A positive image distance indicates that the image is _____.
 b. A negative image distance indicates that the image is _____.
4. a. In a real image, the rays actually _____, and the image would _____ on a screen placed at the location of the image.
 b. In a virtual image, the rays do _____ actually meet, and _____ image will appear on a screen placed at the location of the image.
5. When the centre of curvature of a concave mirror is between an object and the mirror, the image of the object is _____, _____, _____ than the object, and located _____ to the mirror than the object.



Section 10.3 Review (Alternative Format)

6. a. What is the orientation of the image when an object is located between a concave mirror and its focal point?
- _____
- b. What is the orientation of the image when an object is located between the focal point and the centre of curvature of a concave mirror?
- _____
- c. Is it possible for the image to be upright when an object is 30 cm away from a concave mirror with a focal length of 25 cm? Explain your reasoning.
- _____
7. a. Label the diagram below with the following dimensions: $f = 5$ cm, $d_o = 4$ cm, and $h_o = 3$ cm.
- b. Follow the steps in Table 10.2 in your textbook to locate the image of the pencil in this diagram.



8. A concave mirror has a focal length of 5 cm. An object 2 cm high is 11 cm from the mirror. Calculate the image height and image distance.
- a. Use the mirror equation to calculate the image distance, d_i .
- b. Use the magnification equation to calculate the image height, h_i .
- c. Complete the ray diagram below, and use it to check your answers to parts a and b.

